

Amendments to the Specification:

Please modify the paragraph at page 4, lines 3-6 in the following manner:

According to a preferred embodiment, the mode switching means switches from the monitoring mode to the substantial measurement mode when the extracted reference data or change of the reference data reaches exceeds a predetermined threshold value.

Please modify the paragraph at page 8, lines 11-19 in the following manner:

The transmitting unit 5 applies a radio frequency magnetic field to cause nuclear magnetic resonance of nuclei of atoms constituting the living tissues of the object by radio frequency pulses sent from a radio frequency coil 14a the sequencer 4, and consists of a radio frequency oscillator 11, a modulator 12, a radio frequency amplifier 13 and the a radio frequency coil 14a as a transmitter. In the transmitting unit 5, a radio frequency pulse output from the radio frequency oscillator 11 is amplitude-modulated by the modulator 12, amplified by the radio frequency amplifier 13 and supplied to the radio frequency coil 14a to apply radio frequency magnetic fields (electromagnetic waves) to the object 1.